

Abstract

Microfluidic device wherein the interface between a liquid and a fluid non-miscible with one another is stabilized.

The microfluidic device comprises at least one microchannel bounded by a bottom wall, side walls and a top wall and which is designed to contain at least one liquid and at least one fluid non-miscible with the liquid. The microfluidic device comprises means for stabilizing the interface between the liquid and the fluid. The means for stabilizing comprise at least one electrode arranged on at least one part of a first wall of the microchannel, over the entire length thereof, and at least one counter-electrode arranged over the entire length of the microchannel, on at least one part of a second wall, arranged facing the electrode. The electrode and counter-electrode are preferably respectively arranged on the bottom and top wall of the microchannel.